

REMARKS

The Present Invention

The present invention is directed to a method for preparing a dairy product. The method comprises adding a lactose-negative, food-technologically acceptable micro-organism to a medium comprising milk or a milk product. The method further comprises ripening the micro-organism under aerobic conditions, and bringing the resulting product under anaerobic conditions such as to have aromas of the ripening micro-organism formed. The present invention also is directed to the dairy product produced by the method.

The Pending Claims

Claims 1-3 and 5-21 are currently pending. Applicants note that Form PTO-326 accompanying the Office Action dated July 29, 2003, recite that claims 1-3 and 5-20 are pending. However, the text of the Office Action acknowledges that claim 21 also is currently pending. Claims 1-3, 5, 6, 8-14, and 18-21 are directed to a method for preparing a dairy product or a food comprising a dairy product. Claims 7 and 15-17 are directed to a dairy product.

The Claim Amendments

Claims 1, 6, 11-14, and 20 have been amended to point out more particularly and claim more distinctly the present invention. Amended claim 1 is supported by the published parent PCT application at, for example, page 6, lines 1-6, and lines 33-36. Amended claims 6, 11-14, and 20 are supported by the published parent PCT application at, for example, page 3, lines 25-33, and Example 2. No new matter has been added by way of these amendments.

The Office Action

Claims 1-3, 5, 6, 10-14, and 21 have been rejected under 35 U.S.C. § 112, first paragraph, for alleged lack of written description. Claims 1-3 and 5-21 have been rejected under 35 U.S.C. § 112, first paragraph, for alleged lack of enablement. Reconsideration of these rejections is hereby requested.

Discussion of Written Description Rejection

Claims 1-3, 5, 6, 10-14, and 21 have been rejected under Section 112, first paragraph, for allegedly containing subject matter not described in the specification in such a way as to reasonably convey to the ordinarily skilled artisan that the inventors had possession of the

claimed invention at the time of filing. The rejection is respectfully traversed for the reasons set forth below.

According to the Office, the instant specification does not "teach 'sterilized' with respect to the dairy product." The Office further contends that page 3, lines 25-29 refers to the starting material and not the dairy product. Claims 6, 11-14, and 20 have been amended to replace the term "dairy product" with "milk or milk product." Page 3, lines 25-29, adequately describes use of a sterilized milk or milk product in the method of the invention.

The Office further contends that the instant specification does not teach what is encompassed by the phrase "such as to have aromas of the ripening strain formed" as recited in claim 1. At page 3, lines 5-12, the instant specification describes the aroma imparted to a dairy product prepared in accordance with the inventive method, which aroma originates from a microorganism. Claim 1 has been amended to replace the term "strain" with the term "microorganism." The specification clearly describes the claimed method and dairy product in such a way as to reasonably convey to the ordinarily skilled artisan that the inventors were in possession of the invention at the time of filing.

In view of the above, the rejection under Section 112, first paragraph, should be withdrawn.

Discussion of Enablement Rejection

Claims 1-3 and 5-21 have been rejected under 35 U.S.C. § 112, first paragraph, as allegedly not being sufficiently described in the instant specification to enable one of ordinary skill in the art to practice the claimed invention. This rejection is respectfully traversed for the reasons set forth below.

The Office contends that the instant specification does not enable any and all lactose-negative, food-technologically acceptable microorganisms aside from *Candida zelandoides*, *Debaryomyces hansenii* spp *hansenii*, *Saccharomyces cerevisiae*, *Candida robusta*, *Zygosaccharomyces rouxii*, *Micrococcus luteus*, *Arthrobacter*, *Corynebacterium*, and *Arthrobacter* spp. The specification teaches adding a lactose-negative, food-technologically acceptable microorganism to a medium comprising milk or a milk product at, for example, page 2, line 30, through page 3, line 4. Addition of nutrients for lactose-negative, food-technologically acceptable microorganisms is described in the specification at, for example, page 4, line 1, through page 5, line 13. Based on the disclosure of the specification, one of ordinary skill in the art would appreciate that any lactose-negative, food-technologically acceptable microorganism is suitable for use in the inventive method. Indeed, several microorganisms in addition to those specifically recited in the instant specification have been

In re Appln. of Vermin et al.
Application No. 09/787,004

successfully employed in the inventive method to impart an aroma to a dairy product, as described in the Declaration under 37 C.F.R. § 1.132 of Dr. Henry-Eric Spinnler, submitted herewith. According to Dr. Spinnler, cultures were made with a variety of lactose-negative, food-technology acceptable microorganisms in accordance with the inventive method. All of the microorganisms tested imparted an aroma to the dairy product. The instant specification adequately teaches how to make and use the claimed invention, and the rejection under Section 112, first paragraph, should be withdrawn.

Conclusion

The application is considered in good and proper form for allowance, and the Examiner is respectfully requested to pass this application to issue. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned agent.

Respectfully submitted,



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Date: December 1, 2003



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application : Vermin et al.
Art Unit: 1761
Application No. : No 09/787,004
Filed : May 23, 2001
For : Dairy product and method for preparing the same
Examiner : Leslie Wong
Attorney's Docket : No. 209684

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DECLARATION UNDER 37 CFR 1,132

Sir,

I, Henry-Eric Spinnler, citizen of France, residing at 32 bis, Avenue de la Division Leclerc, Sevres, France hereby declare as follows:

1. I am co-inventor of the invention described and claimed in the above mentioned patent application.
2. I have received training in Food Technology at the Ecole Nationale Supérieure des d'Agronomie et des Industries Alimentaires (NANCY, F), having received the M Sc degree in Biotechnology and the doctors degree in Biotechnology, from the Institut National Agronomique - Paris Grignon (Paris, F).
3. I have worked in the Department of Biological and Food Science of Institut National Agronomique Paris -Grignon (INA-PG) for more than 9 years and have held positions as Professor. Before, I have worked as a scientist at Institut National de la Recherche Agronomique (INRA). In my current position I am Professor of Food

technology of the INA-PG. I have knowledge in preparing dairy products, and the use of micro-organisms in such preparation.

4. I have read and understood the Office Action mailed on July 25, 2003 in the referenced patent application. I also understand that the Examiner is of the opinion that the specification of the referenced application does not reasonably provide enablement for any and all lactose-negative, food-technologically acceptable micro-organism.
5. With due respect, I would like to mention that, based upon the referenced application the skilled person will be able to make and use the invention commensurate in scope with the present claims. In order to support this, Exhibit A is enclosed, showing the results of processes under conditions as described in the referenced application. Herein cultures were made with a variety of micro-organisms on full fat milk for 4 days. The resultant product was tested by a trained panel of ten persons. The final two columns give a qualitative indication of the aroma and the average intensity as rated by the ten panel members. It is clear from the results that any of the micro-organisms can be used in accordance with the invention and provide an aroma, based upon what is disclosed in the referenced application.

Signed d.d.

November 12th, 2003



Other strains tested for their flavouring capabilities on milk.

Cultures were made on full fat milk for 4 days.

They were tested by a trained panel of ten persons

These tables summarises the typicality of the culture flavours and in the last column the mean of the 10 notes of intensity given by the panellists .

The strains are reported by their number in our own collection.

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Bactéries	pH	LACTOSE	LACTATE	GALACTOSE	GLUCOSE	AROME	MOYENNE
Bactéries Corynéformes							
B3	6,62	36,1		0,68	1,24	cheesy /low intensity	2,2
D13	6,79	47		0,16	0,4	low intensity	1,9
E7	5,7	35,75		0,65		chocolate /cheesy	3,5
G2	6,62	44,25		0,39		Parmigiano/ nutty	4,4
G8	5,8	40		1,36	0,9	cheesy	3,5
H8	5,02	21,2		3,48	2,94	cheesy	5,1
K2	6,8	37,4		0,32	0,38	cheesy	4,1
K7	7,25	42,5				NH4,rancid	8,1
M3 ₂	8,28	45		0,2	0,2	cheesy	4
N1	7,85	46				?	4,3
P1	6,72	45,1		0,46	0,22	cheesy/ low Intensity	2,6
3 ₁	5,93	41,6		0,36	0,2	chocolate /cheesy	4,6
4 ₄	7,71	41,5				cheesy	5,6
7 ₅	8,12	40,7		0,24	0,02	chocolate	2,7
9 ₁₀	5,9	43,9	0,17	0,42		cheesy	3,2
10 ₁₀	6,79	36,4		0,84	0,2	cheesy	5,3
11 ₆	6,65	46,4		0,54	0,23	low intensity	1,2
90	4,6	38	5,2	0,86		cheesy	5,4
92	6,82	46,2		0,42		low Intensity	1,5
202	6,45	46,57	0,1			Parmigiano	5,4
101125	6,8	40,35		0,12		cheesy	3,3
MICROCOCCUS LUTEUS							
A270	6,01	45,11			0,54	cheesy	4,6
MICROCOCCUS ROSEUS							
731	7,4	44,82	0,24			bacon, crab	5,1
STAPHYLOCOCCUS VITULUS							
450	6,42	44,8		0,34		low intensity	4,4
STAPHYLOCOCCUS LENTUS							
874 ₂	5,36	44		0,42		chocolate	6,1
STAPHYLOCOCCUS EQUORUM							
1265	6,26	42				cheesy	4
103502	4,85	38,08		0,74	0,7	cheesy	5



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Levures	pH	LACTOSE	LACTATE	GALACTOSE	GLUCOSE	AROME	MOYENNE
SACCHAROMYCES CEREVISIAE							
2	5,2	49		0,42		cheesy	3,4
202	6,6	46,35		0,14		yeasty /nusty	3,5
270	5,2	30,1		0,26		fruity	6,7
278	6,72	43,43	0,22		0,44	Parmigiano	5
SACCHAROMYCES ITALICUS							
23	6,55	43,2	0,21			cheesy	2,8
50	6,72	44,35		0,24		Munster	3,3
8	5,87	48		0,19		low Intensity	1,6
ZYGOSACCHAROMYCES ROUXII							
26	6,77	42,8				cheesy	4
27	5,61	31	0,06	0,08		Munster	3,6
CANDIDA KEFIR							
20	6,03	43,25		0,27		rancid	6,9
30	6,01	0,56		0,4		fruity	5,5
35	6,5	49	0,37	0,38		cheesy	2,6
CANDIDA ROBUSTA							
216	6,5	43,45		0,21		Parmigiano	2,3
276	5,4	45,7		0,3		cheesy	5,5
CANDIDA SPHAERICA							
33	5,97	0	0	0		fruity	6,8
CANDIDA INTERMEDIA							
2a	5,61	31	0,06	0,08		fruity	4,4
DEBARYOMYCES HANSENII							
47	6,8	43,75		0,26		low Intensity	2
265	6,3	47,6		0,41		cheesy	4,8
273	5,67	0,83		0,59	0,7	fruity	6
767	6,6	43,5	0,2		0,1	low Intensity	3,4
98m13	5,31	30,74		0,3		low Intensity	3,7
TORULOPSIS BEIGELLI							
278	6,48	12,7	0,78		0,12	chocolate/fruity	2,4
YARROWIA LIPOLYTICA							
270	5,05	44,7				low intensity/cheesy	5,7